

WHAT IS CLAIMED IS:

1. A storage device protection system having a disk for storing data, the disk including a disk medium and buffer means for writing data to the disk medium, the storage device protection system comprising:

detecting means for detecting an operation to cut off a main power supply of the storage device protection system;

access suspending means for suspending access to the hard disk when the detecting means detects the operation;

medium writing means for writing data in the buffer means to the disk medium when the detecting means detects the operation; and

power cutoff means for cutting off the main power supply after the writing operation of the medium writing means.

2. The storage device protection system according to Claim 1, wherein the detecting means is a slidable cover, which detects that a user is about to cut off the main supply before the user actually cuts off the main power supply.

3. The storage device protection system according to Claim 2, wherein a main power supply switch for the main

power supply cut off further comprises a notifying means for providing information to the user as whether cutting off the main power supply is permitted.

4. The storage device protection system according to Claim 3, wherein the notifying means includes at least one light emitting diode built in the main power supply switch.

5. The storage device protection system according to Claim 4, wherein the notifying means generates information after a predetermined time has elapsed after the detecting means detects the operation.

6. The storage device protection system according to Claim 5, wherein the predetermined time is elapsed after the interruption of the writing operation in the disk until the writing operation in the disk medium of the disk is completed.

7. The storage device protection system according to Claim 6, wherein predetermined time is calculated from the result of measurement of time required to transfer data to the disk during normal operation.

8. A device having a disk for storing data, the device

comprising:

detecting means for detecting an operation to cut off a main power supply of the device; and

power cutoff means for cutting off the main power supply after a predetermined time has elapsed after the detecting means detects the operation.

9. The storage device protection system according to Claim 1, further comprising:

a relay for generating an ON/OFF signal to connect to or disconnect from the main power supply in response to a control signal, wherein

the main power supply is cut off by the OFF signal generated from the relay, the OFF signal being based on the control signal generated after the writing operation of the medium writing means.

10. The device according to Claim 8, further comprising:

a relay for generating an ON/OFF signal to connect to or disconnect from the main power supply in response to a control signal, wherein

the main power supply is cut off by the OFF signal generated from the relay, the OFF signal being based on the control signal generated after the elapse of the

predetermined time.

11. A disk protecting method for a device having a disk for storing data, the disk having a disk medium and buffer means for writing data to the disk medium, the method comprising the steps of:

detecting an operation to cut off a main power supply of the device;

suspending access to the disk when the operation is detected in the detecting step;

writing data in the buffer means to the disk medium when the operation is detected in the detecting step; and

cutting off the main power supply after the data is written in the writing step.

12. A disk protecting method for a device having a disk for storing data, the method comprising:

a step of cutting off a main power supply after a predetermined time elapsed after an operation to cut off the main power supply of the device is performed.

13. A control program for executing a disk protecting method for a device having a disk for storing data, the disk including a disk medium and buffer means for writing data to the disk medium, the program comprising the steps of:

detecting an operation to cut off a main power supply of the device;

suspending access to the disk when the operation is detected in the detecting step;

writing data in the buffer means to the disk medium when the operation is detected in the detecting step; and

cutting off the main power supply after the data is written in the writing step.

14. A control program for executing a disk protecting method for a processing device having a disk for storing data, the program comprising:

a step of cutting off a main power supply after a predetermined time elapsed after an operation to cut off the main power supply of the device is performed.

15. A system for providing storage devices with protection from power supply cut off, each storage device including a disk medium and buffer means for writing data to the disk medium, the system comprising:

detecting means for detecting a user action to cut off power supply to a storage device;

access suspending means for suspending data access to the storage device upon detection of said user action by the detecting means,

wherein said data access is suspended until all data in the buffer means has been written to the disk medium; and indicator means for indicating whether said user action is permitted upon detection of said user action.

16. The system according to Claim 15, wherein said detecting means detects the user action to cut off said power supply before said power supply is actually cut off by said user.

17. The system according to Claim 15, wherein said indicator means is an LED (Light Emitting Diode).

18. The system according to Claim 15, wherein said indicator means is a speaker.

19. The system according to Claim 15, wherein said LED is red for providing a visual indication to said user that cutting off the power supply is not permitted.

20. The system according to Claim 19, wherein said red LED remains on for a predetermined time period.

21. The system according to Claim 19, wherein said predetermined time period is based on the longest time

required to transfer data from the buffer means to the disk medium.

22. A method for providing storage devices with protection from power supply cut off, each storage device including a disk medium and buffer means for writing data to the disk medium, the method comprising:

a step of detecting a user action to cut off power supply to a storage device;

a step of suspending data access to the storage device upon detection of said user action in the detecting step,

wherein said data access is suspended until all data in the buffer means has been written to the disk medium; and

a step of indicating whether said user action is permitted upon detection of said user action.

23. A control program for executing a disk protecting method for a device having a disk for storing data, the disk including a disk medium and buffer means for writing data to the disk medium, the program comprising the steps of:

detecting a user action to cut off power supply to a storage device;

suspending data access to the storage device upon detection of said user action in the detecting step,

wherein said data access is suspended until all data in

the buffer means has been written to the disk medium; and
indicating whether said user action is permitted upon
detection of said user action.